

**ABSTRACT OF THE DISCLOSURE****APPARATUS AND METHOD FOR SWAPPING-OUT REAL MEMORY BY  
INHIBITING I/O OPERATIONS TO A MEMORY REGION**

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10 An apparatus and method for swapping out real memory  
by inhibiting input/output (I/O) operations to a memory  
region are provided. The apparatus and method provide a  
mechanism in which a quiesce indicator is provided in a  
15 field containing the current outstanding I/O count  
associated with the memory region whose real memory is to  
be swapped out. The current I/O field and the quiesce  
indicator are used as a means for communicating between a  
shared resource arbitrator and a guest consumer. When  
20 the quiesce indicator is set, the guest consumer is  
informed that it should not send any further I/O  
operations to that memory region. When the number of  
pending I/O operations against the memory region is zero,  
a valid bit in a protection table is set to invalid, and  
25 the real memory associated with the memory region may be  
swapped out. Thereafter, when the memory region is  
swapped back in, an address translation table is updated,  
the valid bit is reset, and the quiesce indicator is  
reset so that further I/O operations to the memory region  
may occur.